

## Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 091920,653A
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 <input checked="" type="checkbox"/> Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <input type="checkbox"/> Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 <input type="checkbox"/> Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 <input type="checkbox"/> Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 <input type="checkbox"/> Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <input type="checkbox"/> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped  Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <input type="checkbox"/> Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 <input type="checkbox"/> Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 <input type="checkbox"/> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <input type="checkbox"/> Misuse of n	n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.	

## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/920,653A  
Source: 1600  
Date Processed by STIC: 3/19/03

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**

**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

**FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.**

**FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.**

**PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:**

**<http://www.uspto.gov/web/offices/pac/checker>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202.  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

RECEIVED

MAR 21 2003

TECH CENTER 1600

1600

Does Not Comply  
Corrected Diskette Needed

DATE: 03/19/2003

TIME: 14:10:42

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/920,653A

Input Set : A:\EP.txt

Output Set: N:\CRF4\03192003\I920653A.raw

3 <110> APPLICANT: Japan as Represented by Director General of Okazaki National  
 4 Research  
 5 Institutes  
 7 <120> TITLE OF INVENTION: Nav2 channel gene-deficient non-human animals  
 9 <130> FILE REFERENCE: U2001P059  
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/920,653A  
 C--> 12 <141> CURRENT FILING DATE: 2001-08-03  
 14 <150> PRIOR APPLICATION NUMBER: JP 2000/237320  
 15 <151> PRIOR FILING DATE: 2000-08-04  
 17 <150> PRIOR APPLICATION NUMBER: JP 2000/241637  
 18 <151> PRIOR FILING DATE: 2000-08-09  
 20 <150> PRIOR APPLICATION NUMBER: JP 2001/222263  
 21 <151> PRIOR FILING DATE: 2001-07-23  
 23 <160> NUMBER OF SEQ ID NOS: 8  
 25 <170> SOFTWARE: PatentIn Ver. 2.1

## ERRORED SEQUENCES

27 <210> SEQ ID NO: 1  
 28 <211> LENGTH: 446  
 29 <212> TYPE: DNA  
 30 <213> ORGANISM: Rattus norvegicus  
 32 <400> SEQUENCE: 1  
 33 atgttgactt ccccagagcc gaagggcctt gtccattca cggcagagtc acttgaactt 60  
 E--> 34 ataaaaaatc acattgctaa aaaatgcaac gaagagcatg aagaagaaga tttaaaacca  
 35 120  
 E--> 36 agccgggata tagaagcagg caaaaaactt ccatttgcct atggaaccct tcctcaagga  
 37 180  
 E--> 38 accgtgtcag agcccttgga agatgtggat ccatactact atgttaagag aaatactttc  
 39 240  
 E--> 40 atggtcttaa acagaaacag agtcatcttc aggttcaatg cggtttccat cctctgcacg  
 41 300  
 E--> 42 ttgtctcctt taagctctct cagaagagct gttatcaagg ttttggtgca ccccttttg  
 43 360  
 E--> 44 cgctgtctga ttttaattag tgttctcacc gacagcatac ttatgtgcat gagtaaccta  
 45 420  
 E--> 46 ccggaatgga tattggcagt agagaa  
 47 446  
 50 <210> SEQ ID NO: 2  
 51 <211> LENGTH: 5482  
 52 <212> TYPE: DNA  
 53 <213> ORGANISM: Mus musculus

Sample pages shown of wrapped nucleic in  
 Seqs. 1, 2, and 4, See error summary sheet  
 item 1.

## RAW SEQUENCE LISTING

DATE: 03/19/2003

PATENT APPLICATION: US/09/920,653A

TIME: 14:10:42

Input Set : A:\EP.txt

Output Set: N:\CRF4\03192003\I920653A.raw

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55 <220> FEATURE:
56 <221> NAME/KEY: CDS
57 <222> LOCATION: (252)..(5297)
59 <400> SEQUENCE: 2
60 cacgcgtcga ctagtacggg ggggggggag gggttggtct gtaggtggtc tctgggtctg 60
E--> 62 tggagctagc ctgggtggctg agtggttagc tggaagcagc agtggaccgc aaccacattg
63 120
E--> 65 caacaacctc cgtagtagag atctgagaag acaagcccag gagagcaaag ggctctcgtg
66 180
E--> 68 agccttgcac ctgggggttct tgctggagtt ttagtgaaga ctagcatttg acagcaacta
69 240
E--> 71 taaaaccgaa a atg ttg act tcc cca gag ccg aag ggc ctt gtc cca ttt
72 290
73 Met Leu Thr Ser Pro Glu Pro Lys Gly Leu Val Pro Phe
74 1 5 10
E--> 76 aca aca gag tca ctt gaa ctt ata gaa aat cac att gct aaa aaa tgc
77 338
78 Thr Thr Glu Ser Leu Glu Leu Ile Glu Asn His Ile Ala Lys Lys Cys
79 15 20 25
E--> 81 aat gaa gac ccc gaa gaa gaa gaa ggt tta aaa cca agt cgt aat cta
82 386
83 Asn Glu Asp Pro Glu Glu Glu Glu Gly Leu Lys Pro Ser Arg Asn Leu
84 30 35 40 45
E--> 86 gaa gct ggc aaa aga ctt cca att ccc tat gga acc ctc cct cga gga
87 434
88 Glu Ala Gly Lys Arg Leu Pro Ile Pro Tyr Gly Thr Leu Pro Arg Gly
89 50 55 60
E--> 91 acc gtg tca gag ccc ttg gaa gat gtg gat cca tac tac tat gtt aag
92 482
93 Thr Val Ser Glu Pro Leu Glu Asp Val Asp Pro Tyr Tyr Tyr Val Lys
94 65 70 75
E--> 96 aga aat act ttc atg gtc tta aac aga agc aga gtc atc ttc agg ttc
97 530
98 Arg Asn Thr Phe Met Val Leu Asn Arg Ser Arg Val Ile Phe Arg Phe
99 80 85 90
E--> 101 aat gcg gtt tcc atc ttc tgc aca ttg tct cct cta aac tcc ctc aga
102 578
103 Asn Ala Val Ser Ile Phe Cys Thr Leu Ser Pro Leu Asn Ser Leu Arg
104 95 100 105
E--> 106 aga gca gct atc aag gct ttg gtg cat ccc ctt ttt cgc ctg ctg att
107 626
108 Arg Ala Ala Ile Lys Ala Leu Val His Pro Leu Phe Arg Leu Leu Ile
109 110 115 120 125
E--> 111 tta atc agc gtt ctc act gac agc ata ctt atg tgc atg agt aat cta
112 674
113 Leu Ile Ser Val Leu Thr Asp Ser Ile Leu Met Cys Met Ser Asn Leu
114 130 135 140
E--> 116 cca gaa tgg ata ttg gca ata gag aat act ttg ctt ggg att tac gca
117 722

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## RAW SEQUENCE LISTING

DATE: 03/19/2003

PATENT APPLICATION: US/09/920,653A

TIME: 14:10:42

Input Set : A:\EP.txt

Output Set: N:\CRF4\03192003\I920653A.raw

```

831 <210> SEQ ID NO: 4
832 <211> LENGTH: 6927
833 <212> TYPE: DNA
834 <213> ORGANISM: Mus musculus
836 <400> SEQUENCE: 4
837 aagcttttact ctacacagaga aaagtcttct gagtgcacaa ttgccaacga tacaacctca 60
E--> 838 ccttagttta ccctgacctg tgaaagatgg cttcaacag tggagaataa ggagttctag
839 120
E--> 840 ctgagatggt tcattaagcg acatattcat ggatcagctt ttgatggcag attttcaggc
841 180
E--> 842 tcctttttct cactgccaat aattttacaa aacacaattt taaaattgta gtctttatgg
843 240
E--> 844 gaaacaattc atcctataga tgttgtaag gacaaaacat tttcactcct gggcagtttt
845 300
E--> 846 gttgttcctt tccctcactg tcatggcgct aaagcggtag ctcatcccca gattaggggc
847 360
E--> 848 ccagggtgta ttgtttctaa gtctgaaatt gtaggggaga gttctttgaa ctcatctctt
849 420
E--> 850 catgagttca aagaacatat gacaacttat tgatagaatg actttacaca tggccatatt
851 480
E--> 852 ttacacattt actattttac aggtataaaa ccgaaaatgt tgacttcccc agagccgaag
853 540
E--> 854 ggccttgtcc catttacaac agagtcactt gaacttatag aaaatcacat tgctaaaaaa
855 600
E--> 856 tgcaatgaag accccgaaga agaagaagg ttaaaaccaa gtcgtaatct agaagctggc
857 660
E--> 858 aaaagacttc caattcccta tggaaccctc cctcgaggaa ccgtgtcaga gcccttggaa
859 720
E--> 860 gatgtggatc catactacta tgttaagaga aatgtaagta ttaactgtta tcattgaagc
861 780
E--> 862 tatattttac ttgcgttata ttcagccact tgaaatgtaa ttgagataag acttaaagaa
863 840
E--> 864 aattaataga gaaggcattc tttcataatc tattctttgt ggggggtcaac atgctcaaga
865 900
E--> 866 tagttaaacc tgataaaata tctgagtaat atattatggg taatgaccgt agtatatata
867 960
E--> 868 ctgctattcc ttaatataag tggctattgt gaaaatatgc taattacat tttctgatta
869 1020
E--> 870 gcaattttta aacaatcatg aaatatttag aatatggaca gaaatttcaa ataccttgat
871 1080
E--> 872 aacttactag tcaaaacagt acatttattt ttaatcatat ataaatccac aaattcaaac
873 1140
E--> 874 ctccctcatt tccaggaaga ctttagagac ctagaaatta tgtatacaca aacacacaca
875 1200
E--> 876 cacacataca cacacacaca cgcacacgca aatgcacacc ctaccatcac aaacacaaaa
877 1260
E--> 878 taagtacaag aatgatttct gttagaaaat tcagacatgt ggattgatga agatagatga
879 1320
E--> 880 gtcttgtttc aaaagcatgg tttgggggct ggagaaatgt ctcagtttct aatagcactg

```

## VERIFICATION SUMMARY

DATE: 03/19/2003

PATENT APPLICATION: US/09/920,653A

TIME: 14:10:43

Input Set : A:\EP.txt

Output Set: N:\CRF4\03192003\I920653A.raw

L:11 M:270 C: Current Application Number differs, Replaced Application Number  
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:34 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:120 SEQ:1  
M:254 Repeated in SeqNo=1  
L:62 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:120 SEQ:2  
M:254 Repeated in SeqNo=2  
L:838 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:120 SEQ:4  
M:254 Repeated in SeqNo=4